

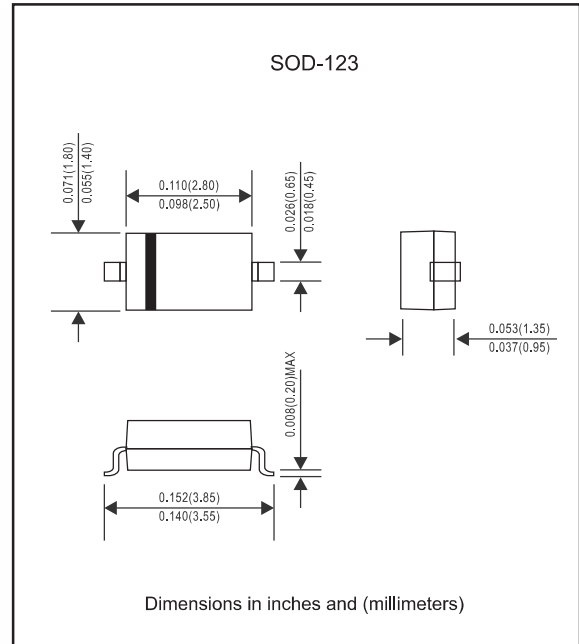
## Features

- ▶ For use in low voltage, high frequency inverters
- ▶ Free wheeling, and polarity protection applications

## Mechanical data

- ▶ **Case:** JEDEC SOD-123 molded plastic body
- ▶ **Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026
- ▶ **Polarity:** Color band denotes cathode end
- ▶ **Mounting Position:** Any
- ▶ **Marking:** SD

## Package outline

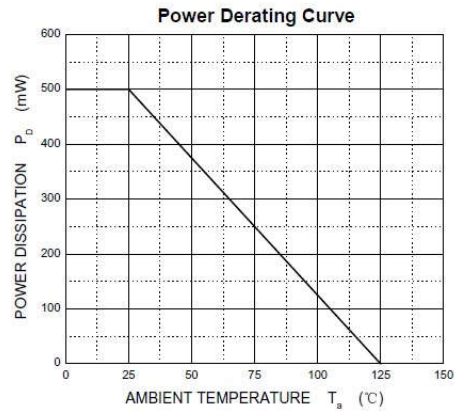
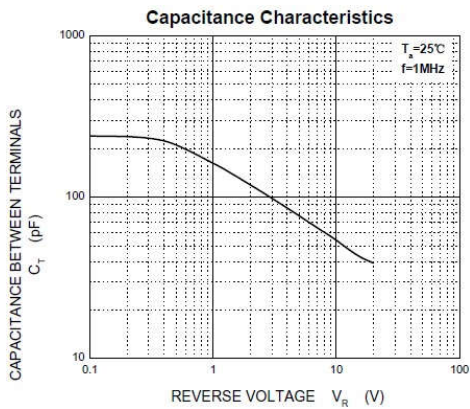
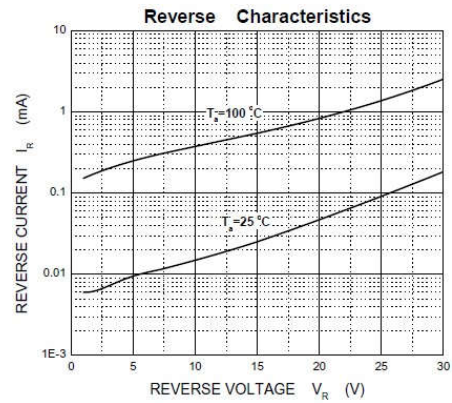
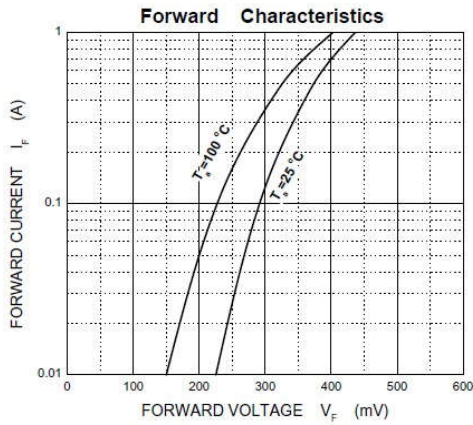


## Maximum ratings and Electrical Characteristics (AT $T_A=25^\circ\text{C}$ unless otherwise noted)



PARAMETER	SYMBOLS	MBR0520L			UNITS
Peak repetitive peak reverse voltage	$V_{RRM}$	20			V
Working peak	$V_{RWM}$				V
DC Blocking voltage	$V_R$				V
RMS Reverse voltage	$V_{R(RMS)}$	14			V
Average rectified output current	$I_o$	0.5			A
Peak forward surge current @=8.3ms	$I_{FSM}$	5.5			A
Power dissipation	$P_d$	500			mW
Thermal resistance junction to ambient	$R_{\theta JA}$	200			K/W
Operating junction temperature range	$T_J$	-55 to +125			$^\circ\text{C}$
Storage temperature	$T_{STG}$	-55 to +150			
Non-Repetitive peak reverse voltage	$V_{RM}$	20	30	40	V

PARAMETER	SYMBOLS	Min.	Max.	Unit	Test conditions
Reverse breakdown voltage	$V_{(BR)}$	20		V	$I_R=250\mu\text{A}$
Reverse voltage leakage current	$I_R$		75	$\mu\text{A}$	$V_R=10\text{V}$
			250	$\mu\text{A}$	$V_R=20\text{V}$
Forward voltage	$V_F$		0.33	V	$I_F=0.1\text{A}$
			0.385	V	$I_F=0.5\text{A}$
Diode capacitance	$C_D$		170	pF	$V_R=0\text{V}, f=1.0\text{MHz}$

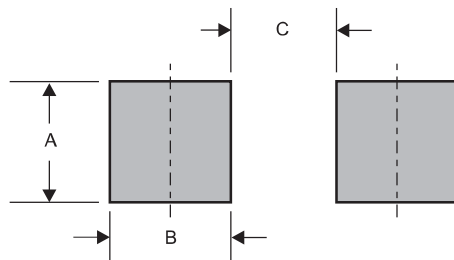
**Rating and characteristic curves**



**Pinning information**

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

**Suggested solder pad layout**



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SOD-123	0.048 (1.22)	0.036 (0.91)	0.093 (2.36)